DOCUMENT RESUME

ED 213 482 PS 012 664

AUTHOR	Chesterfield, Ray; And Others
TITLE	An Evaluation of the Head Start Bilingual Bicultural Curriculum Models. Final Report. Executive Summary.
INSTITUTION	Juarez and Associates, Inc., Los Angeles, Calif.
SPONS AGENCY	Administration for Children, Youth, and Families (DHHS), Washington, D.C.
PUB DATE	[82]
CONTRACT	HHS-105-77-1048
NOTE	28p.; For Final Report, see PS 012 663. Appendix filmed from best copy available.
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Bilingual Education; *Bilingual Students; *Curriculum Evaluation; English (Second Language); Language Acquisition; Multicultural Education; Parent Attitudes; *Preschool Curriculum; Preschool Education; Program Effectiveness; *Program Implementation; *Spanish Speaking; Teacher Attitudes
IDENTIFIERS	*Project Head Start

ABSTRACT

Between 1976 and 1979, Head Start, as part of its strategy for Spanish-speaking children, funded four institutions for the purpose of developing and implementing four distinct bilingual bicultural preschool curriculum models for use with Spanish-speaking children. In 1977, the Research, Demonstration, and Evaluation Division of the Administration for Children, Youth, and Families commissioned Juarez and Associates Inc. to conduct an evaluation of the Head Start Bilingual Bicultural Curriculum Development Project. The study, which was conducted over a 3 1/2-year period in eight Head Start centers in communities with relatively large Hispanic populations, focused on the impact of the four bilingual bicultural preschool curriculum models on the children, their parents, and their teachers. This document provides an executive summary of the study's evaluation design, the findings of the study, and the implications of these findings. (Author/MP)

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ADMINISTRATION FOR CHILDREN, YOUTH AND FAMILIES
Office of Human Development Services
U.S. Department of Health and Human Services

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Executive Summary

ED213482

FINAL REPORT OF

An EVALUATION of the HEAD START BILINGUAL BICULTURAL CURRICULUM MODELS

PS 01 2664

BY JUAREZ AND ASSOCIATES • LOS ANGELES, CA.

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Overview of the Evaluation of the Head Start Bilingual Bicultural Curriculum Models

Between 1976 and 1979, Head Start, as part of its Strategy for Spanish-Speaking Children, funded four institutions for the purpose of developing and implementing four distinct bilingual bicultural preschool curriculum models for use with Spanish-speaking children. In 1977, the Research, Demonstration, and Evaluation Division of the Administration for Children, Youth, and Families commissioned Juárez and Associates, Inc., of Los Angeles, California, to conduct an Evaluation of the Head Start Bilingual Bicultural Curriculum Development Project. The study, which was conducted over a 3-1/2 year period in eight Head Start centers in communities with relatively large Hispanic populations, focused on the impact of the four bilingual bicultural preschool curriculum models. Data from the evaluation were analyzed to answer three central questions:

- IMPACT: What was the impact of the bilingual bicultural curriculum models on the children, their parents, and their teachers?
- IMPLEMENTATION: Was curriculum implementation successfully achieved at each evaluation site?
- FEASIBILITY OF TRANSFER: Can the bilingual bicultural curriculum be successfully implemented in other settings?

STUDY FINDINGS

The study findings are as follows:

> Were the bilingual bicultural curricula effective?
>
> Yes.

- Spanish-preferring* Head Start children in the four bilingual curricula performed better on all English language impact

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*The terms "Spanish-preferring" and "English-preferring" were used in place of "Spanish Dominant" and "English Dominant" because they more accurately reflect language use among young bilingual children. Spanish-preferring children are those who used Spanish in a majority of home and preschool activities at the time of pretest. English-preferring children are those who used English in a majority of home and preschool activities at the time of pretest.

measures than did similar Head Start children not in the four curricula.

- English-preferring Head Start children in the four bilingual bicultural curricula performed as well on all English language measures as did similar Head Start children not in the curricula.

Did the bilingual bicultural curricula impact favorably on Spanish-preferring children?

Yes.

- On three out of four English language measures, children in the bilingual bicultural curricula performed significantly better than Head Start children who were not in the curricula. The three measures assessed:
  - A child's ability to use English, e.g., to tell a story, use different tenses, etc.;
  - A child's ability to think abstractly, e.g., to distinguish between light and heavy or above and below;
  - A child's ability to coordinate eye and hand movement, e.g., to draw a straight line or copy geometric figures.
- On the fourth English language measure, children in the bilingual bicultural curricula performed better than Head Start children who were not in the curricula. The difference, however, was not statistically significant. This measure assessed a child's ability to understand English, e.g., to answer questions about a story told in English.
- On two of five Spanish language measures, children in the four bilingual bicultural curricula performed significantly better than Head Start children who were not in the curricula. These measures assessed a child's ability to use Spanish (e.g., to produce words to tell a story in Spanish), and to think abstractly (e.g., to distinguish between light and heavy or above and below in Spanish).
- On the other three Spanish language measures, children in the four bilingual bicultural curricula performed as well as Head Start children who were not in the curricula. These measures assessed:

- A child's ability to use Spanish;
- A child's ability to understand Spanish;
- A child's ability to coordinate eye and hand movements.

Did findings from the classroom observations also demonstrate favorable outcomes for Spanish-preferring children?

Yes.

- On the whole, children in the bilingual bilcultural curricula increased their English language use in the classroom by 21% from Fall to Spring.
- This increase in English language use was accompanied by an improvement in the quality of their English.

Did the bilingual bicultural curricula have unfavorable impact on English-preferring children?

No.

- On all English language measures, children in the four bilingual bicultural curricula performed as well as Head Start children who were not in the curricula.
- On all Spanish language measures, children in the four bilingual bicultural curricula performed as well as Head Start children who were not in the curricula.

Did findings from classroom observations support these findings for English-preferring children?

Yes.

- There was an improvement in the quality of the children's English language use in the classroom.

Were parent attitudes favorable toward the bilingual bicultural curricula?

Yes.

- Mothers of children in the four bilingual bicultural curricula expressed highly positive attitudes toward bilingual bicultural curriculum models, Head Start and bilingual education.

Were teacher abilities and attitudes favorable toward the use of the bilingual bicultural curricula?

Yes.

- Ninety-one percent of the classroom staff had ability in both English and Spanish.
- Classroom staff expressed uniformly positive attitudes toward the bilingual curriculum model with which they were working.

Are some aspects of the program more directly related to positive child outcomes than other aspects?

Yes.

- The use of the dual language strategies, as suggested by the curriculum models, was the aspect of programming most related to positive child outcomes.

Can the models be successfully implemented in other settings?

Yes.

- The models were implemented in sites which varied considerably in terms of the geographic, linguistic and cultural characteristics.
- The successful implementation of the models at two distinct replication sites indicate that the curriculum models can be employed in different settings.

* * *

The Evaluation of the Head Start Bilingual Bicultural Curriculum Development Project is described in greater detail in the following pages. (A list of previous project report volumes and their contents appears as an appendix.)

Background of the Evaluation of the Head Start Bilingual Bicultural Curriculum Models

THE HEAD START STRATEGY FOR SPANISH-SPEAKING CHILDREN

In 1975, Project Head Start initiated a national effort to address the specific needs of Spanish-speaking children. Known as the Head Start Strategy for Spanish-Speaking Children, this comprehensive effort sought to develop a capacity for Head Start to implement bilingual bicultural early childhood programs. The effort focused on four related areas:

- bilingual multicultural curriculum development,
- competency based bilingual bicultural Child Development Associate (CDA)* training for classroom staff,
- a National Bilingual Multicultural Resource Network for Head Start programs, and
- research focusing on Spanish-speaking children.

A principal assumption underlying the effort was that children whose primary language is not English should be provided with preschool experiences in the language they know best. It was also realized that one curriculum model could not satisfy the diverse needs of Head Start centers serving Spanish-speaking and bilingual communities throughout the country.

From 1976 to 1979, Project Head Start supported an experimental effort to develop, pilot, and implement four preschool bilingual bicultural curriculum models. During the first year of development, each curriculum model was designed in consultation with parents and staff of cooperating Head Start centers. In the second year, a pilot implementation of each curriculum model took place at selected Head Start centers. In the third year of curriculum development activities, each of the four models was fully implemented at two Head Start centers. Hispanic and non-Hispanic children participated in the program as it was felt that these curricula could also be used among nonbilingual or non-Hispanic children.

THE BILINGUAL BICULTURAL CURRICULUM MODELS

Under the leadership and guidance of the Project Head Start staff, the curriculum models were developed by four organizations with a tradition of excellence in research and development of early childhood

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*CDA training is intended to prepare child care personnel to assume direct responsibility for the daily activities in child care programs such as Head Start, day care, nursery schools and other preschool programs.

programs. The models and their developers were as follows:

- ALERTA - Teachers College of Columbia University
- AMANECER - Intercultural Development Research Association
- Nuevas Fronteras de Aprendizaje - University of California at Santa Cruz
- Un Marco Abierto - High/Scope Research Foundation

The four models were based on the same fundamental requirements.

- Each curriculum model was to: (a) be based on sound educational theory; (b) embody an approach to early education consistent with child development theory; and (c) be acceptable by the ethnic community and usable by Head Start programs without need for extensive training.
- Each curriculum model was to be based on sound early child development principles and a bilingual bicultural enhancement philosophy. The models were not to be based on a deficit approach.
- Each curriculum model was to provide learning activities for the development of basic skills in the areas of cognitive, socioemotional, psychomotor, and language (English and Spanish) development.
- Each curriculum model was to be consistent with the Head Start Performance Standards and had to provide for the integration of all component areas (i.e., Parent Involvement, Social Services, Health Services, and Education) wherever possible.
- Each curriculum development effort was to include a plan for involving Head Start staff, parents, and administrators in the development, implementation, and validation of the curriculum model.
- Each curriculum model was to be replicable and usable in a variety of preschool settings such as Head Start, Day Care, and Nursery School.
- Each curriculum model was to provide specific information on the procedure to be used in deciding which language would be used when, by whom, and for what purpose. Grouping of children by language dominance was also to be addressed.
- Each curriculum was to have an explicit definition of bicultural education as it would be implemented in the curriculum model. This would include a description of the cultural goals and sample learning activities.

THE EVALUATION EFFORT

During the 1979-1980 preschool year, which corresponded to the third year of the curriculum development project, testing of children and classroom observations were carried out at each curriculum model demonstration site. The remainder of this document summarizes the evaluation design, the findings of the study, and implications based on the findings.

Evaluation Design

Originally, the design was intended as a pre-post study with 90 children at each of the 8 curriculum implementation sites. Forty-five children at each site were to have been randomly assigned to a bilingual bicultural curriculum classroom; forty-five were to have been randomly assigned to a non-preschool comparison group. Children were to be stratified on the basis of language preference (Spanish or English), age, sex, and any prior preschool experience.

Each of the four curriculum developers selected two Head Start sites in which to implement their respective curriculum models. The locations chosen were as follows:

- ALERTA - South Bronx and Lower East Side, New York City, New York.
- AMANECER - Corpus Christi and Laredo, Texas.
- Nuevas Fronteras de Aprendizaje - Rio Grande City, Texas and Corona, California.
- Un Marco Abierto - East Los Angeles, California and Milwaukee, Wisconsin.

As is often the case in the evaluation of social programs, practical, ethical and logistical considerations prevented recruitment and random assignment of children to experimental treatment and no-treatment control groups. Five sites* were able to provide equivalent comparison samples of children who were placed in regular Head Start programs. These site samples provided the basis of the overall child impact analyses which compared Experimental and Comparison group children.

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*The two New York sites were not able to identify sufficient numbers of Comparison children. The Corpus Christi Comparison children did not attend a Head Start center.

Study Sample

Experimental children attended Head Start centers implementing one of the bilingual bicultural curriculum models. Comparison children received Head Start services through Head Start centers near each of the experimental sites. The final evaluation sample consisted of 442 children distributed across the eight evaluation sites. Two hundred and forty-three children made up the Experimental group and 199 children were in the Comparison group. At the start of the preschool year, children ranged from 36 to 48 months in age, and there was a predominance of Spanish-preferring children at most sites. Three hundred and seventy-five mothers and 33 teachers and aides in the Experimental classrooms formed the parent and teacher sample.

Data Collection

All children were tested on selected standardized competency measures at the beginning of the Head Start year (Fall 1979) and at its conclusion (Spring 1980). In addition, a subsample of Experimental children at four evaluation sites were the subjects of intensive classroom observation for 3 three-week periods during the year. Twice during the year, parents and teachers responded to questions related to their attitudes toward bilingual education in general and their satisfaction with a particular curriculum model. Naturalistic observations and rating forms were used to assess the degree of implementation of all 26 experimental classrooms at three different points in time during the evaluation year. A series of quality control procedures ensured the accuracy and consistency of the observational data throughout the data collection period.

Data Analysis

Analyses of variance (ANOVA) and covariance (ANCOVA) were used to assess differences in the test performance of Experimental and Comparison children. Contrasts were also made between Spanish-preferring Experimental and Comparison children of the same language preference grouped by entry-level ability in English. Behavioral observation data provided profiles of each subsample child and the relative frequency with which each child was observed to use English and Spanish in the classroom.

FINDINGS OF THE EVALUATION OF THE HEAD START BILINGUAL BICULTURAL CURRICULUM MODELS

The pre-post analyses of Experimental and Comparison group data resulted in the following findings.

FINDINGS FOR CHILDREN

Spanish-preferring Children

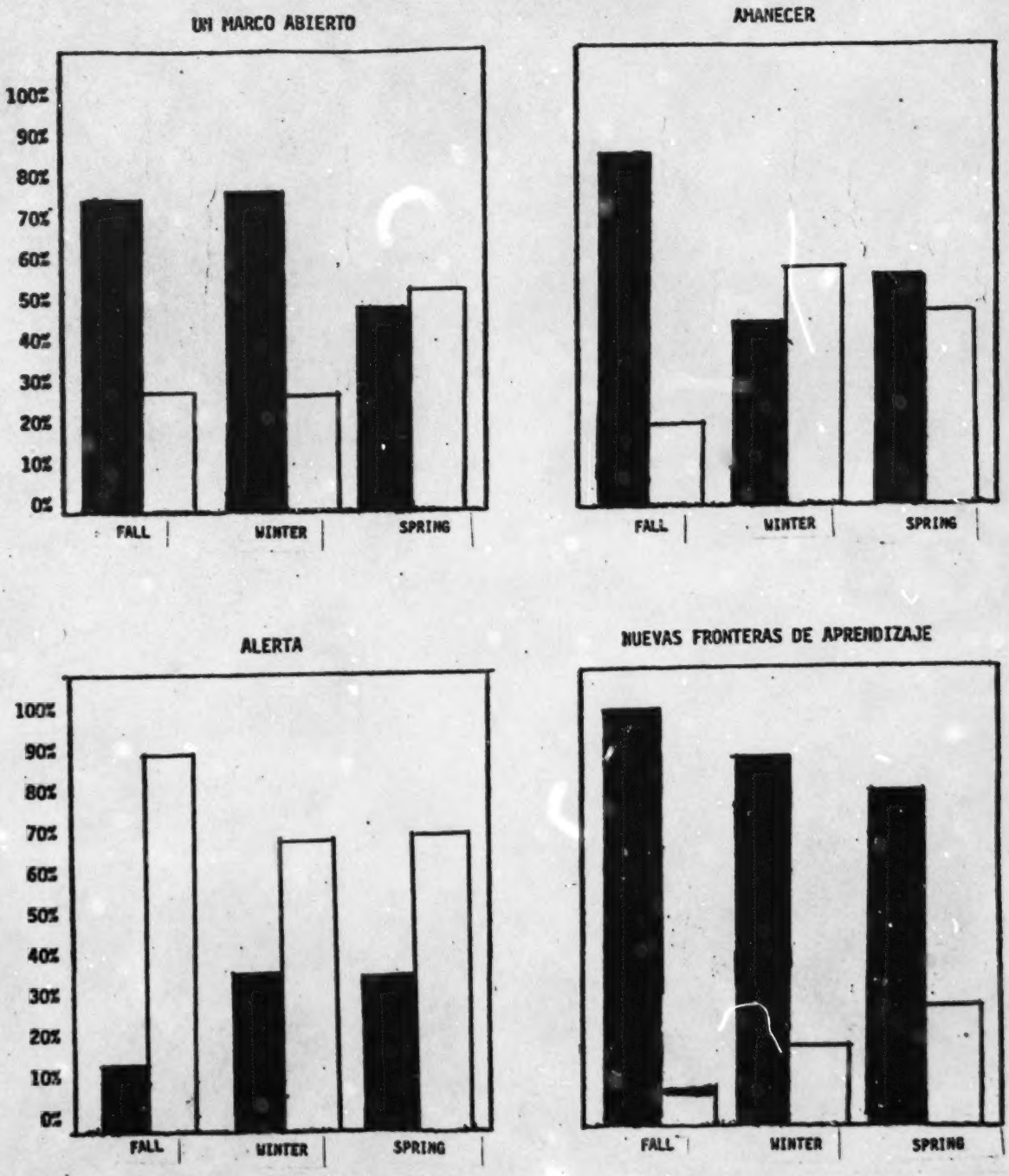
The results for Spanish-preferring children were as follows:

- The Experimental group children made significant pre/post gains over the Comparison group children on English language measures of Language Acquisition, Concept Development and Perceptual Motor Development.
- The Experimental group children also showed greater pre/post gains than the Comparison group on the Measure of English Comprehension. However, this difference was not statistically significant.
- As a group, the Experimental group children increased their use of English by 21% over the course of the Head Start year (see Figure I).
- This increase of English language use was accompanied by qualitative improvements such as an acquired use of tenses (past, present and future), ability to use abstract words and phrases, use of plurals, etc.

For purposes of further analysis, Spanish-preferring Experimental children were separated into two groups, depending on their English language abilities at the beginning of the Head Start year. Their post-test gains were then compared to equivalent Comparison groups on English language measures of: Language Acquisition; Comprehension and Concept Development.

- Spanish-preferring Experimental children who entered Head Start with limited/no English language abilities made significant gains over their Comparison group on English language measures of Language Development and Concept Development.
- Spanish-preferring Experimental children who entered Head Start with English speaking abilities made significant gains over their Comparison group on the English Comprehension measure.

FIGURE I . USE OF SPANISH AND ENGLISH BY SPANISH-PREFERRING CHILDREN IN THE CLASSROOM OVER TIME[1]



■ Use of Spanish by Spanish-preferring children

□ Use of English by Spanish-preferring children

1 Figure I is intended to illustrate the patterns of language use by Spanish-preferring Head Start children at four sites at the beginning, middle, and end of the preschool year. The bars in the figure indicate the proportion of Spanish and English used by the children in the classroom. Data is based on observations of a representative subgroup of Spanish-preferring children from each classroom using the models at Los Angeles, Corpus Christi, New York City, and Rio Grande City.

Classroom observations showed that the Spanish-preferring Experimental children received different language exposure in the classroom, depending on their English language abilities at the time that they entered preschool.

- The bilingual classrooms provided Experimental children with limited English language abilities access to situations where they could practice English. Through the use of two languages in the classroom, these children's abilities in English gradually increased.

- The bilingual classrooms provided Experimental children with demonstrated abilities in English with multiple language exposure to classroom learning situations. Even early in the preschool year these children were often addressed in English by teachers and classmates. They also were exposed to numerous opportunities to listen to teachers interact in Spanish with other children. This opportunity to listen to similar material in both languages allowed the children to use one language as a check against misinterpretation in the other.

In the area of Spanish Language use, all significant differences between the Spanish-preferring Experimental and Comparison children favored the Experimental group.

- Experimental children, when compared with children in other Head Start programs showed significant gains on measures of Spanish Language Production and Concept Development. The following example, abstracted from an evaluator's fieldnotes, illustrates the developmental pattern of Spanish-preferring children who entered preschool with English language abilities.

Luis, an alert child with big brown eyes, was a Spanish-preferring boy who began the year with some productive, receptive and conceptual ability in his second language as measured by pretests. With peers he tended to restrict his interactions to Spanish when he first arrived at school. Typical of the Texas community in which he lived, his speech was interspersed with English words. For example, one morning early in the preschool year as he ate his breakfast of milk and toast, he talked about breakfast time at home with those seated around the tiny table with him: "Nosotros hacemos esto (toast), y le ponemos peanut butter." Although his classroom speech was predominantly Spanish at this time, he exhibited some receptive ability in his second language and periodically employed short English phrases with adults such as the time when he told his favorite teacher, "Miss Maciel, you bootiful."

By the end of the school year over 60% of his total verbal interactions in the classroom were in English. With his Spanish-preferring peers he continued to use mainly Spanish, which had developed considerably to include complex tenses such as in his statement when directing a classmate in the block area, "Aquí pa' que no se salgan." With the teacher and English-preferring classmates, however, he spoke totally in English. During independent play, for example, he proudly displayed a tunnel of blocks which he had skillfully erected in the block area with a classmate to an adult observer stating, "Look what we're doing, Mr. Cardenas. It's not gonna fell down." Although his English was not always grammatically correct, he had become communicatively competent in his second language in the classroom situation over the course of the preschool year while maintaining development in his preferred language as shown by both his classroom and test performance.

English-preferring Children

Both test results and classroom observations suggest that the English-preferring preschoolers made progress in English as a result of participation in a bilingual program. Unlike their Spanish-preferring peers, however, their classroom language experiences were primarily in their first language.

- Experimental children when compared with children enrolled in other Head Start programs without a bilingual curriculum model performed as well on all English language measures.

- Classroom observations for Experimental children indicate that their use of English improved over the year. This was

evidenced by diversified use of grammatical forms and increased abilities to use abstract forms, reflecting concept development.

In the area of Spanish language use, the progress of the English-preferring children was limited.

- Experimental children, as a group, scored at near zero on most Spanish language tests at the end of the year, as did the Comparison and Head Start children.
- Experimental children's use of Spanish in the classroom was largely limited to repeating words and phrases after the teacher during structured activities.

The following case study, summarizing the experience of one English-preferring child as recorded in the focused observations over the course of the year, serves as an illustration of the general development pattern for children of this language preference at most evaluation sites.

Pearl, a trim young girl with a rich complexion, was an English monolingual. She expressed no interest in learning Spanish at first, responding negatively to the teacher's question at the beginning of the year of whether the children wanted to learn Spanish. Pearl was very verbal in her native Black English dialect, characterized by the dropping of the -s in the third person singular present tense form, as exhibited by her enthusiastic participation in a discussion of Christmas: "Christmas tree -- I got one. Know what? We spoke to Santa Claus' friend on the phone. My daddy say we don't have to talk. He carry all her toys."

By spring of the preschool year Pearl was paying close attention during the Spanish language activities and eagerly singing Spanish language songs such as "Mi Escuelita." She frequently joined the teacher in reminding her classmates of clean-up time, spontaneously chanting, "Es hora de limpiar el salón." Still, however, she spoke to both teachers and peers almost totally in English. In the meantime, she continued to develop rapidly in her native language, learning new concepts. At the end of the year, for example, Pearl was responding to the teacher's queries about a recent visit to the Bronx Zoo. When the teacher asked her "How many gorillas did you see?" Pearl answered correctly, "two." She then pointed to the picture of gorillas held by the teacher and exclaimed: "That's a fat, fat gorilla. Two daddies and two mommies . . . I saw two daddies." Both classroom observations such as this and test data show that Pearl, like many of the English-preferring children, expanded her vocabulary, functional repertoire, and conceptual knowledge in her first language as a result of her participation in the learning activities provided by the curriculum models. Development in her second language, however, was limited to learning of isolated words and rhymes.

Findings for Parents

- <u>All sample mothers expressed highly positive attitudes toward Head Start, education, and bilingual education.</u> Mothers of children in both the Experimental and Comparison groups felt highly positive toward the educational system and bilingual education throughout the year. All mothers had similar educational aspirations for their children; most hoped for a college education for their offspring. The predominant feelings about the curriculum models were positive. The informal interviews conducted by the evaluation

staff brought to light certain thoughts which provided a strong endorsement for the bilingual bicultural curriculum models.

From Spanish-preferring parents:

- It's good for my son to be in class because children his age learn more quickly than adults. It's like my husband said: "El Papa habla español, el presidente ya habla español y nosotros nada de inglés." (The Pope speaks Spanish, the President even speaks Spanish, and we don't know any English.)
- I want my daughter to speak both Spanish and English. This class (with a bilingual curriculum) is good because I know myself that I had problems going to college without a good knowledge of English and now my Spanish is not so good when I go back to Puerto Rico.

From English-preferring parents:

- I want Eddie to learn Spanish and I would like to learn it myself because so many people in the community are Spanish speaking. I really enjoy it when Eddie comes home and tells me the Spanish words he's learned in class.

- Parents were most active in preschool activities in those sites where the Head Start center was located in the immediate neighborhood of the home. In those sites where the Head Start centers were not in the immediate neighborhood of the home and transportation resources were not readily available, parent participation in preschool activities was low. At sites where the Head Start centers were located in the immediate neighborhoods of the home, parents were more active in assisting in preschool activities by making materials, preparing foods and helping the teachers in direct classroom activities.

Findings for Teachers

- Classroom staff expressed favorable attitudes toward the bilingual curriculum model with which they were working. At all sites, teachers and aides were positive in their opinion of the curriculum models. Their most general comment was that the curricula supplied a structure and approach for providing learning experiences to children of different language preferences, which had been lacking in their previous Head Start teaching experience. However, all teachers indicated that a great amount of planning and preparation was required by the models in order for all of the suggested activities to be carried out.

- Classroom staff viewed the social value of bilingual education as its major advantage. Benefits from bilingual education such as cultural awareness, intercultural communication, and self-enrichment were those most frequently cited by classroom staff for both English- and Spanish-preferring children. When reference was made to economic benefits -- especially in the area of career opportunities -- they were commonly associated with the importance of bilingualism and bilingual education for Spanish-preferring children.

  When interviewed informally during the year, teachers summed up their feelings as follows:

  For English-preferring Hispanic children:

  - Being aware of his Hispanic heritage and language will enable the child to develop in both English and Hispanic cultures.

  For non-Hispanic children:

  - The child can understand his Hispanic peers and there there is a greater degree of interaction. The cultural differences would be understood without prejudice.

  For Spanish-preferring Hispanic children:

  - It is important for the native Spanish child to speak English in this country because more often than not, he will be confronted with only English-speaking persons in higher positions.

  - Children get a better self-concept because they recognize that speaking Spanish is just as good as speaking English. This helps them learn not to be ashamed of their language.

- Ninety-one percent of the preschool teachers and aides had ability in Spanish and English and most used Spanish regularly in the preschool classroom. Thirty-one of the 33 classroom staff interviewed across all sites stated they used Spanish in situations outside the classroom. Findings from classroom observations were consistent with the teacher interview data on the language skills of teachers. Approximately 80% of the classroom staff were observed to use Spanish regularly in the preschool classrooms. The Spanish language abilities of the Head Start teaching staff cannot be ignored as a factor leading to the success of this demonstration effort.

Findings on Implementation of the Curriculum Models

Five main aspects of programming -- scheduling of activities, room arrangement, instructional materials, individual behavior of students and teachers within the classroom, and instructional strategies -- were investigated in the evaluation. The models, and at times the individual classrooms within a site, gave different emphasis to certain aspects of programming. Still, a number of common factors were found to consistently influence the implementation process by affecting specific programmatic areas. These factors are depicted in Figure II.

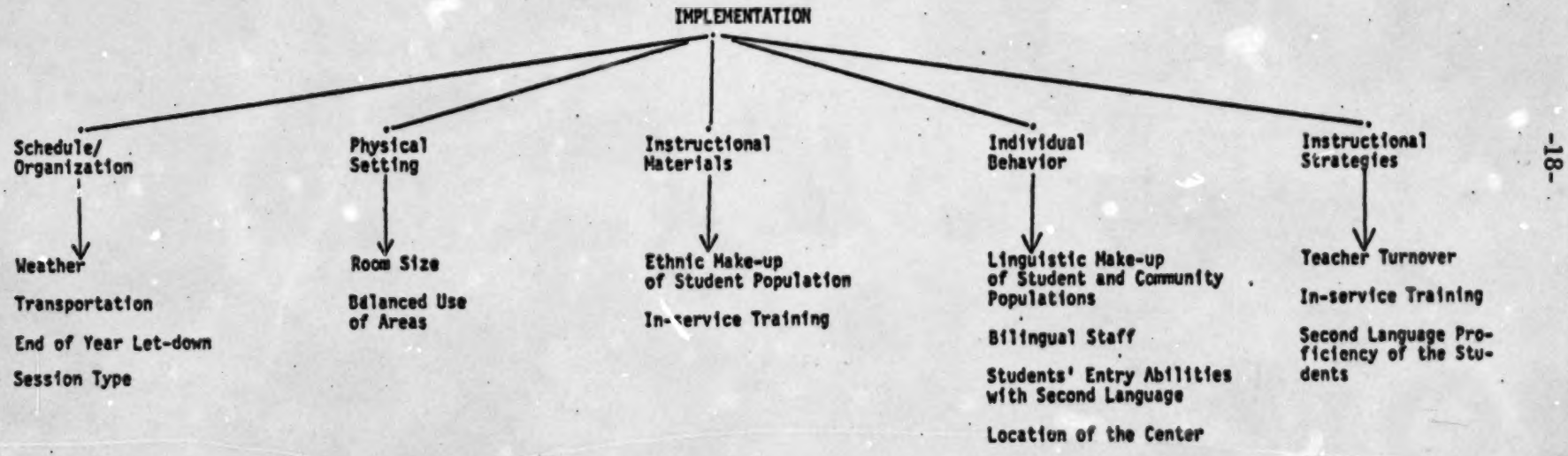
- Adherence to a planned schedule, room arrangement, and use of instructional materials were the aspects of programming most easily implemented across all models. Teachers generally carried out activities according to the schedule planned for them. A single half-day session was the most effective type of teaching situation. Teachers who had a half-day teaching load used the remainder of their work day for planning, completing observational forms or profiles on the children, or making home visits, depending on the emphasis of a particular model. The room arrangements allowed for separation of the classroom into model-specific learning centers or areas, and permitted the children freedom of movement in utilizing the space. Instructional materials provided by the model developers or those suggested by the curricula were consistently used by the teachers at all sites.

- Carrying out the language strategies suggested by the models was the aspect of programming most related to positive child outcomes. It was at those sites where the teachers most consistently followed the model's strategy for language practice that most significant differences between Experimental and Comparison Head Start children were generally found. Teachers using models recommending language separation strategies encountered difficulties in maintaining the use of a single language during language sessions. At sites where proficiency with the second language was very low, children often did not understand a lesson conducted entirely in their second language and became bored. At other sites where second language proficiency of the children was high, they often persisted in speaking the second language even when the teacher was conducting the session in their first or preferred language. In-service training sessions proved especially valuable in providing all teachers with an opportunity to practice skills targeted by the models as important for carrying out instructional strategies.

- The degree of implementation of the curriculum models achieved at all sites was sufficient for positive child outcomes. All of the sites were successful in implementing a model, and the overall

FIGURE II.

FACTORS AFFECTING SPECIFIC
ASPECTS OF IMPLEMENTATION ACROSS
ALL EVALUATION SITES



degree of implementation was generally similar at the two replication sites for each model. Maximum scores on the implementation instruments for all classrooms were slightly more than one-half of the total points possible if complete implementation, as defined by the observational instruments, had been achieved. This finding, together with those of the more ethnographic data which identified a number of factors influencing the degree of implementation of a model, suggests that an ideal level of implementation may not be possible because of the practical constraints which impinge daily on the Head Start centers.

Findings on Feasibility of Transfer of the Curriculum Models

- The bilingual bicultural curriculum models were adaptable to different geoghraphical, linguistic, and cultural settings. With the exception of those in New York City, the two Head Start centers implementing a curriculum model were found in different types of communities that provided varying language environments. In addition, the models functioned within a variety of administrative structures, different types of Head Start centers, and with different schedules. This was evidenced by their successful implementation within public school settings, church settings, and independent Head Start centers, with either half- or full-day sessions.

Figure III summarizes the settings in which the curriculum models were implemented. Geographical environments ranged from the concentrated urban setting of New York City to a small rural Texas town. The models were implemented in classrooms where all but one or two children were Spanish preferring and in those where children were primarily English preferring and bilingual. Ethnic makeup of the students being served included Mexican Americans, Puerto Ricans, Blacks, and Anglos.

FIGURE III. DEMOGRAPHIC CHARACTERISTICS OF EVALUATION SITES

	GEOGRAPHICAL		LINGUISTIC		ETHNIC		
	Urban	Rural	Spanish	English	Hispanic	Black	Anglo
ALERTA I	X		X	X	X	X	
ALERTA II	X		X	X	X	X	
AMANECER I	X		X	X	X	X	X
AMANECER II	X		X		X		X
NUEVAS FRONTERAS I		X	X		X		
NUEVAS FRONTERAS II		X	X	X	X	X	X
UN MARCO ABIERTO I	X		X	X	X	X	
UN MARCO ABIERTO II	X		X	X	X		X

Implications of the Evaluation of the Head Start Bilingual Bicultural Curriculum Models

Programmatic Implications

- **Bilingual preschool curricula can be effective for both Spanish- and English-preferring children.**

  Both test results and classroom observations showed that bilingual curricula contribute to the positive development of children of both language preferences. Spanish-preferring Experimental children increased their practice with English and made consistent gains across a number of measures in English when contrasted to Comparison groups.

  English-preferring Experimental children generally performed as well as did the English-preferring children in Comparison Head Start centers on all measures in English. These children were also observed to expand their grammatical and functional competence in their first language and to receive some practice with Spanish in the preschool classrooms. This suggests that participation in a bilingual program by English-preferring preschoolers can result in at least the same level of gain that would be achieved in a Head Start program without a bilingual curriculum model.

- **The English language gains made by Spanish-preferring children in Head Start bilingual curriculum classrooms will vary depending upon their English language abilities upon entering Head Start.**

  The English language gains made by Spanish-preferring children who entered Head Start with limited/no English speaking abilities were most apparent on measures of English Language Acquisition and English Language Development. Spanish-preferring children who entered Head Start with English language abilities made their greatest gains on the English Comprehension measure. These differences are partly explained by the fact that Spanish-preferring children who entered Head Start with English language abilities had more opportunities to interact with teachers and peers in English, particularly at the beginning of the preschool year. Spanish-preferring children with limited/no English speaking abilities were primarily limited to Spanish language interactions with teachers and peers at the beginning of the year. Toward the end of the year, as their English language abilities progressed, their classroom use of English increased.

- FOR SPANISH-PREFERRING CHILDREN, ENGLISH LANGUAGE GAINS DID NOT ADVERSELY AFFECT THEIR SPANISH LANGUAGE DEVELOPMENT.

  Despite the fact that Spanish-preferring Experimental children made better gains in areas of English language development, there was no evidence of what some researchers have referred to as a "balanced effect." That is, that bilingual children's skills in their first language decrease as they increase their second language skills. To the contrary, Experimental Spanish-preferring children scored consistently higher than the Head Start Comparison children on a number of Spanish measures.

  These findings suggest that the English language goals of a bilingual curriculum are not at variance with the development of a bilingual child's primary language.

- ONE YEAR OF A BILINGUAL PRESCHOOL CURRICULUM MAY NOT BE SUFFICIENT FOR SPANISH-PREFERRING CHILDREN TO REACH THE LEVEL OF COMPETENCE IN ENGLISH NECESSARY TO COMPETE SUCCESSFULLY WITH THEIR ENGLISH-PREFERRING CLASSMATES.

  Spanish-preferring children with demonstrated ability in English at pretest were observed to have no difficulty in participating in classroom activities conducted in English at the end of the year. However, they reached the level of their English-preferring classmates who were culturally similar to the Spanish-preferring children but had greater English language abilities at the beginning of the year, only on the posttest measure of English comprehension. This occurred despite a decided preference on the part of these children late in the year for using English in the classroom. Similarly, although the Spanish-preferring children with very limited entry-level ability in English were able to make significant gains in their second language over similar comparison children, their grammatical and functional competence in English in both their classroom and test performance was still limited at the end of the year. Given the relative success of the programs, it might be appropriate to consider expanding a similar systematic bilingual bicultural curriculum development effort through second or third grade.

- A MAJORITY OF CLASSROOM STAFF PARTICIPATING IN THE EXPERIMENTAL PROGRAMS HAD ABILITY IN SPANISH AND ENGLISH AND MOST USED SPANISH REGULARLY IN THE CLASSROOM.

  Studies of bilingual programs have often found that teachers lack proficiency in Spanish or that they tend to use the language they know best in the classroom. The majority of the teachers implementing the curriculum models evaluated considered themselves to have at least some ability in Spanish and most were observed to use both Spanish and English in the classroom. The Spanish language abilities of the Head Start teaching staff cannot be ignored as a factor in the success of the demonstration effort. Such abilities are an important consideration in planning future efforts in bilingual preschool instruction.

APPENDIX

OVERVIEW OF AN EVALUATION OF HEAD START CURRICULUM DEVELOPMENT PROJECT REPORTS

A list of the supporting documents produced for this study and a summary of their contents are presented below. ERIC reference numbers are included where appropriate.

Review and Recommendation for the Test Battery, July, 1978 presents the procedures used in selecting the standardized instruments, addresses the critical issues which guided the selection of the tests, lists the recommended tests and justification for their selection and discusses the process of test administration. ED190221

A Qualitative/Quantitative Data Gathering Approach, December, 1978 presents the rationale for the multimethod data collection strategy and describes the various procedures utilized in the evaluation: participation researcher, naturalistic observations, teacher interviews, implementation checklists, time and event samples, etc. In addition, a discussion of data management and data analysis procedures is presented. The report also elaborates on the integration of psychometric and ethnographic data. ED190222

A Plan for the Pilot Study of Child and Parent Impact Measures, December, 1978 contains a description of the procedures used to pilot test the battery of impact instruments and a preliminary plan for their field testing with a sample of children from the evaluation sites. The latter discussion provides details on site contact, training of examiners, and examination procedures.

Pilot Study Results of the Child Assessment Measures: June, 1979 reports the results of the pilot testing of the impact instruments and recommends procedures for test administration including selecting and training of examiners, monitoring the testing, facilities, scheduling and order of testing. ED190219

Final Report of the Pilot Study Results and the Training of Fieldworkers for the Ethnographic/Observational Component: September, 1979 presents the results of the pilot testing of the qualitative techniques as well as the training process for the fieldworkers. Included are the piloting of implementation checklists, time and event samples, ethnographic notetaking, coding, quality control, role management and policy and ethical matters. ED190230

Field Supervisor Observations and Quality Control of Ethnographic Data: December, 1979 describes, in detail, the qualitative data collection techniques and discusses quality control procedures for the ethnographic data including the monitoring of field notes, parallel observations, the development of a field manual and the reorientation and retraining of fieldworkers. ED190220

Report of the Pretest Results and Posttest Analysis Plan for the Quantitative Component, February, 1980 presents an overview of the instruments, and data analysis procedures used in the pretest at the evaluation sites. It also includes a profile of the sample at each evaluation site and the results of the quantitative impact measures on children, parents and staff. ED190218; Appendices ED190223

Preliminary Report on the Field Supervisor's Spring Parallel Observations and Debriefing of Fieldworkers: July, 1980 reviews the data collection strategies, presents the results of the supervisor-fieldworker second set of parallel observations and describes the plan for debriefing implementation and participant researchers.

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